Guangwei He

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

69 papers	3,907 citations	36 h-index	62 g-index
71 ext. papers	4,710 ext. citations	14.6 avg, IF	5.53 L-index

#	Paper	IF	Citations
69	Advanced organic molecular sieve membranes for carbon capture: Current status, challenges and prospects **2022**, 2, 100028		0
68	Irreversible synthesis of an ultrastrong two-dimensional polymeric material.. *Nature*, **2022**, 602, 91-95	50.4	3
67	Gas Separations using Nanoporous Atomically Thin Membranes: Recent Theoretical, Simulation, and Experimental Advances.. *Advanced Materials*, **2022**, e2201472	24	3
66	Weakly pressure-dependent molecular sieving of propylene/propane mixtures through mixed matrix membrane with ZIF-8 direct-through channels. *Journal of Membrane Science*, **2022**, 648, 120366	9.6	0
65	Confined facilitated transport within covalent organic frameworks for propylene/propane membrane separation. *Chemical Engineering Journal*, **2022**, 439, 135657	14.7	1
64	MOF-COF "Alloy" Membrane for Efficient Propylene/Propane Separation.. *Advanced Materials*, **2022** , e2201423	24	5
63	Polybenzimidazole copolymer derived lacey carbon film for graphene transfer and contamination removal strategies for imaging graphene nanopores. *Carbon*, **2021**, 173, 980-988	10.4	7
62	Tight Covalent Organic Framework Membranes for Efficient Anion Transport via Molecular Precursor Engineering. *Angewandte Chemie*, **2021**, 133, 17779-17787	3.6	5
61	Engineering Covalent Organic Framework Membranes. *Accounts of Materials Research*, **2021**, 2, 630-643	7.5	17
60	Centimeter-scale gas-sieving nanoporous single-layer graphene membrane. *Journal of Membrane Science*, **2021**, 618, 118745	9.6	12
59	Predicting Gas Separation through Graphene Nanopore Ensembles with Realistic Pore Size Distributions. *ACS Nano*, **2021**, 15, 1727-1740	16.7	10
58	Multipulsed Millisecond Ozone Gasification for Predictable Tuning of Nucleation and Nucleation-Decoupled Nanopore Expansion in Graphene for Carbon Capture. *ACS Nano*, **2021**,	16.7	5
57	Tight Covalent Organic Framework Membranes for Efficient Anion Transport via Molecular Precursor Engineering. *Angewandte Chemie - International Edition*, **2021**, 60, 17638-17646	16.4	21
56	Direct Chemical Vapor Deposition Synthesis of Porous Single-Layer Graphene Membranes with High Gas Permeances and Selectivities. *Advanced Materials*, **2021**, 33, e2104308	24	8
55	Two-dimensional nanochannel membranes for molecular and ionic separations. *Chemical Society Reviews*, **2020**, 49, 1071-1089	58.5	103
54	Accelerating CO2 capture of highly permeable polymer through incorporating highly selective hollow zeolite imidazolate framework. *AICHE Journal*, **2020**, 66, e16800	3.6	9
53	Self-crosslinked blend alkaline anion exchange membranes with bi-continuous phase separated morphology to enhance ion conductivity. *Journal of Membrane Science*, **2020**, 597, 117769	9.6	36

52	Synergistic CO2-Sieving from Polymer with Intrinsic Microporosity Masking Nanoporous Single-Layer Graphene. *Advanced Functional Materials*, **2020**, 30, 2003979	15.6	20
51	De Novo Design of Covalent Organic Framework Membranes toward Ultrafast Anion Transport. *Advanced Materials*, **2020**, 32, e2001284	24	59
50	Restricting Lattice Flexibility in Polycrystalline Metal-Organic Framework Membranes for Carbon Capture. *Advanced Materials*, **2019**, 31, e1900855	24	73
49	Ultrathin Carbon Molecular Sieve Films and Room-Temperature Oxygen Functionalization for Gas-Sieving. *ACS Applied Materials & Interfaces*, **2019**, 11, 16729-16736	9.5	10
48	High-permeance polymer-functionalized single-layer graphene membranes that surpass the postcombustion carbon capture target. *Energy and Environmental Science*, **2019**, 12, 3305-3312	35.4	65
47	Enhancing hydroxide conductivity of anion exchange membrane via incorporating densely imidazolium functionalized graphene oxide. *Solid State Ionics*, **2019**, 333, 83-92	3.3	17
46	Crystal Engineering of Metal□Organic Framework Thin Films for Gas Separations. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 49-69	8.3	34
45	Enhancing the hydroxide conductivity of imidazolium-functionalized polysulfone by incorporating organic microsphere with ionic brushes. *Journal of Membrane Science*, **2018**, 554, 6-15	9.6	17
44	Manipulation of interactions at membrane interfaces for energy and environmental applications. *Progress in Polymer Science*, **2018**, 80, 125-152	29.6	40
43	Electrophoretic Nuclei Assembly for Crystallization of High-Performance Membranes on Unmodified Supports. *Advanced Functional Materials*, **2018**, 28, 1707427	15.6	45
42	Single-layer graphene membranes by crack-free transfer for gas mixture separation. *Nature Communications*, **2018**, 9, 2632	17.4	111
41	Electrophoretic Crystallization of Ultrathin High-performance Metal-organic Framework Membranes. *Journal of Visualized Experiments*, **2018**,	1.6	2
40	A highly conductive and robust anion conductor obtained via synergistic manipulation in intra- and inter-laminate of layered double hydroxide nanosheets. *Journal of Materials Chemistry A*, **2018**, 6, 10277-10285	13	22
39	Molecular engineering of organic-inorganic interface towards high-performance polyelectrolyte membrane via amphiphilic block copolymer. *Journal of Membrane Science*, **2018**, 563, 1-9	9.6	6
38	Highly conductive and robust composite anion exchange membranes by incorporating quaternized MIL-101(Cr). *Science Bulletin*, **2017**, 62, 266-276	10.6	19
37	One-Pot Synthesis of Chloromethylated Mesoporous Silica Nanoparticles as Multifunctional Fillers in Hybrid Anion Exchange Membranes. *Chinese Journal of Chemistry*, **2017**, 35, 673-680	4.9	4
36	Enhancing Hydroxide Conductivity and Stability of Anion Exchange Membrane by Blending Quaternary Ammonium Functionalized Polymers. *Electrochimica Acta*, **2017**, 240, 486-494	6.7	38
35	Bioinspired Ultrastrong Solid Electrolytes with Fast Proton Conduction along 2D Channels. *Advanced Materials*, **2017**, 29, 1605898	24	67

34	Graphene Oxide Membranes with Heterogeneous Nanodomains for Efficient CO Separations. *Angewandte Chemie - International Edition*, **2017**, 56, 14246-14251	16.4	95
33	Graphene Oxide Membranes with Heterogeneous Nanodomains for Efficient CO2 Separations. *Angewandte Chemie*, **2017**, 129, 14434-14439	3.6	11
32	Highly Hydroxide-Conductive Nanostructured Solid Electrolyte via Predesigned Ionic Nanoaggregates. *ACS Applied Materials & Interfaces*, **2017**, 9, 28346-28354	9.5	14
31	Facilitating Proton Transport in Nafion-Based Membranes at Low Humidity by Incorporating Multifunctional Graphene Oxide Nanosheets. *ACS Applied Materials & Interfaces*, **2017**, 9, 27676-27687	9.5	48
30	Comparison of facilitated transport behavior and separation properties of membranes with imidazole groups and zinc ions as CO2 carriers. *Journal of Membrane Science*, **2016**, 505, 44-52	9.6	26
29	Constructing efficient ion nanochannels in alkaline anion exchange membranes by the in situ assembly of a poly(ionic liquid) in metal–organic frameworks. *Journal of Materials Chemistry A*, **2016**, 4, 2340-2348	13	86
28	Incorporating Zwitterionic Graphene Oxides into Sodium Alginate Membrane for Efficient Water/Alcohol Separation. *ACS Applied Materials & Interfaces*, **2016**, 8, 2097-103	9.5	90
27	Graphitic carbon nitride nanosheets/sulfonated poly(ether ether ketone) nanocomposite membrane for direct methanol fuel cell application. *Journal of Membrane Science*, **2016**, 507, 1-11	9.6	75
26	A highly proton-conducting, methanol-blocking Nafion composite membrane enabled by surface-coating crosslinked sulfonated graphene oxide. *Chemical Communications*, **2016**, 52, 2173-6	5.8	42
25	Advances in high permeability polymer-based membrane materials for CO2 separations. *Energy and Environmental Science*, **2016**, 9, 1863-1890	35.4	475
24	A highly permeable graphene oxide membrane with fast and selective transport nanochannels for efficient carbon capture. *Energy and Environmental Science*, **2016**, 9, 3107-3112	35.4	155
23	Enhanced proton conductivity of Nafion nanohybrid membrane incorporated with phosphonic acid functionalized graphene oxide at elevated temperature and low humidity. *Journal of Membrane Science*, **2016**, 518, 243-253	9.6	79
22	Preparing alkaline anion exchange membrane with enhanced hydroxide conductivity via blending imidazolium-functionalized and sulfonated poly(ether ether ketone). *Journal of Power Sources*, **2015**, 288, 384-392	8.9	80
21	Fabricating graphene oxide-based ultrathin hybrid membrane for pervaporation dehydration via layer-by-layer self-assembly driven by multiple interactions. *Journal of Membrane Science*, **2015**, 487, 162-172	9.6	106
20	Manipulating the interfacial interactions of composite membranes via a mussel-inspired approach for enhanced separation selectivity. *Journal of Materials Chemistry A*, **2015**, 3, 19980-19988	13	64
19	Enhanced water retention and proton conductivity of proton exchange membranes by incorporating hollow polymer microspheres grafted with sulfonated polystyrene brushes. *RSC Advances*, **2015**, 5, 5343-5356	3.7	13
18	Novel sulfonated poly (ether ether ketone)/phosphonic acid-functionalized titania nanohybrid membrane by an in situ method for direct methanol fuel cells. *Journal of Power Sources*, **2015**, 273, 544-553	8.9	61
17	Facilitated transport of small molecules and ions for energy-efficient membranes. *Chemical Society Reviews*, **2015**, 44, 103-18	58.5	165

16	Nanostructured Ion-Exchange Membranes for Fuel Cells: Recent Advances and Perspectives. *Advanced Materials*, **2015**, 27, 5280-95	24	273
15	Tunable Nanochannels along Graphene Oxide/Polymer Core–Shell Nanosheets to Enhance Proton Conductivity. *Advanced Functional Materials*, **2015**, 25, 7502-7511	15.6	83
14	Enhanced water retention and low-humidity proton conductivity of sulfonated poly(ether ether ketone) hybrid membrane by incorporating ellipsoidal microcapsules. *International Journal of Hydrogen Energy*, **2015**, 40, 8398-8406	6.7	15
13	Fabrication of sulfonated poly(ether ether ketone)-based hybrid proton-conducting membranes containing carboxyl or amino acid-functionalized titania by in situ sol–gel process. *Journal of Power Sources*, **2015**, 276, 271-278	8.9	61
12	Constructing facile proton-conduction pathway within sulfonated poly(ether ether ketone) membrane by incorporating poly(phosphonic acid)/silica nanotubes. *Journal of Power Sources*, **2014** , 259, 203-212	8.9	55
11	Enhanced proton conductivity of proton exchange membranes by incorporating sulfonated metal-organic frameworks. *Journal of Power Sources*, **2014**, 262, 372-379	8.9	95
10	Efficient CO2 capture by humidified polymer electrolyte membranes with tunable water state. *Energy and Environmental Science*, **2014**, 7, 1489	35.4	105
9	Zwitterionic microcapsules as water reservoirs and proton carriers within a Nafion membrane to confer high proton conductivity under low humidity. *ACS Applied Materials & Interfaces*, **2014**, 6, 5362-6	9.5	44
8	Enhanced CO2 permeability of membranes by incorporating polyzwitterion@CNT composite particles into polyimide matrix. *ACS Applied Materials & Interfaces*, **2014**, 6, 13051-60	9.5	66
7	Functionalized carbon nanotube via distillation precipitation polymerization and its application in nafion-based composite membranes. *ACS Applied Materials & Interfaces*, **2014**, 6, 15291-301	9.5	63
6	Enhancing water retention and low-humidity proton conductivity of sulfonated poly(ether ether ketone) composite membrane enabled by the polymer-microcapsules with controllable hydrophilicity–hydrophobicity. *Journal of Power Sources*, **2014**, 248, 951-961	8.9	43
5	Enhanced proton conductivity of Nafion hybrid membrane under different humidities by incorporating metal-organic frameworks with high phytic acid loading. *ACS Applied Materials & Interfaces*, **2014**, 6, 9799-807	9.5	129
4	Recent advances in the fabrication of advanced composite membranes. *Journal of Materials Chemistry A*, **2013**, 1, 10058	13	219
3	Independent control of water retention and acid–base pairing through double-shelled microcapsules to confer membranes with enhanced proton conduction under low humidity. *Journal of Materials Chemistry A*, **2013**, 1, 2267-2277	13	62
2	Enhanced proton conductivity under low humidity of sulfonated poly(ether ether ketone) composite membrane enabled by multifunctional phosphonic acid polymeric submicrocapsules. *Journal of Power Sources*, **2013**, 240, 258-266	8.9	13
1	Microstructure Manipulation of Covalent Organic Frameworks (COFs)-based Membrane for Efficient Separations. *Chemical Research in Chinese Universities*,1	2.2	0